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# Rotating thin-shell wormhole from glued Kerr spacetimes

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## Abstract

We construct a model of a rotating wormhole made by cutting and pasting two Kerr spacetimes. As a result, we obtain a rotating thin-shell wormhole with exotic matter at the throat. Two candidates for the exotic matter are considered: (i) a perfect fluid; (ii) an anisotropic fluid. We show that a perfect fluid is unable to support a rotating thin-shall wormhole. On the contrary, the anisotropic fluid with the negative energy density can be a source for such a geometry. © 2011 Pleiades Publishing, Ltd.

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